3689

Diag. Cht. No. 8551-2

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

O. H. Tittmann

Superintendent.

State: Alaska

DESCRIPTIVE REPORT.

Hyd. *Sheet No.* 3689

LOCALITY:

Passage Canal
and Blackstone Bay

1914

CHIEF OF PARTY:

Gilbert T. Rude

11—4645

3689

Hydrographic Sheet ~~A~~ 3689

Scale : 1-20,000.

Port Wells and Entrance to Passage Canal

Prince William Sound - Alaska.

Steamer Taku - Season 1914.

Gilbert T. Rude - Chief of Party and Hydrographer.

Positions plotted by R.C. Briggs, Aid.

Soundings plotted by W.D. Sutcliffe, Aid.

Soundings in fathoms.

Subplan of Entry Cove on scale 1-10,000.

Shoreline from Topographic Sheet No. A, scale-1-20,000 and topographic sheet No. B, scale 1-10,000, shown here in broken line.

D E S C R I P T I V E R E P O R T.

to accompany

Hydrographic Sheet Number 3689

Scale 1-20,000.

South end of Port Wells and into the entrance to Passage Canal

to Point Decision, Alaska.

Steamer Taku, Season 1914.

Gilbert T? Rude, Chief of Party and Hydrographer.

D E S C R I P T I V E R E P O R T .

to Accompany

Hydrographic Sheet Number 3689

Scale 1-20,000

South end of Port Wells and into the entrance to Passage Canal

to Point Decision, Alaska.

Steamer TAKU, Season 1914.

Gilbert T, Rude, Chief of Party and Hydrographer.

Limits of sheet and time:

This work was begun on June 23rd and completed on August 6th. This time was not spent wholly on this sheet. The work on sheet No . B. of Passage Canal was in progress during this time.

The hydrography included within the limits of this sheet extends from the work of the Taku executed in 1912 between Esther and Cudross Islands, across the south end of Port Wells and into the entrance of Passage Canal as far up as Point Decision.

Character of Bottom:

The bottom is for the most part blue glacial clay, changing to rocky close inshore and is very even. The Passage is deep, averaging two hundred fathoms in the main channal. The deep water extends practically from shore to shore, the distance of the one hundred fathom curve from the shore averaging about three tenths of a mile and at no place more than eight tenths of a mile.

The bottom in the south end of Port Wells is remarkably flat, the majority of the soundings over this area ranging from two hundred and thirty to two hundred and thirty-six fathoms.

ROCHS AND SHOALS:

A rock in Port Wells, covered by one foot of water at lower low water, lies four hundred and fifty meters of the point half way between Point Pigot and Pigot Bay.

A rock, bare at low water, lies near the entrance to Entry Cove about two hundred meters west of triangulation station Pigot on Pigot Point. These rocks, being so close inshore and outside the natural track of vessels, can scarcely be classed as dangers to navigation.

A shoal, least depth of fifty-seven feet at Lower Low Water, was found and developed with whaleboat, on the west side at the entrance to Entry Cove.

Anchorages:

Good anchorage, with swinging room for one vessel up to two hundred feet in length, maximum draft, may be found in Entry Cove just under Point Pigot, in about thirteen fathoms, soft bottom.

There are no other anchorages within the limits of the sheet.

Control and Signals:

This work is controlled by the main scheme of triangulation executed by the party on the TAKU during the season of 1914, together with intersection stations, Decision, Spot, Tri, Tit, and also the following stations located by plane table: Flig, Cot, Do, Dog, Han, Bum, And, Goon, Log, Nat, Fif, Nit, Pie, Kite, Cap, Sue, Ring, Dig, Po, Flat, Rat, Bay, Off, Pen, Whit, Lag, Black, Last, Bug, Id, Sto, Y, A, B, Bas and Hum. These stations are shown on topographic sheets Nos. A. and B. in this vicinity.

Aids to Navigation:

Should Passage Canal become important commercially it is recom-

mended that an Acetylene Light be established on Pigot Point, at the north entrance to Pasaage Canal.

No other Aids to Navigation are considered necessary in the area covered by this sheet.

Methods:

No unusual methods were adopted on this survey. A Cosmos Sounding Machine was used on the TAKU for all the deep work, the steamer backing up for each sounding.

A Basnett Pressure Tube was used in a few cases along the shores. A handlead was used from the Steamer over the shoal area near the rock between Point Pigot and Pigot Bay.

Whaleboat work, using handlead, was done in Entry Cove. This work is plotted on a Subplan, scale one to ten thousand.

Names:

The following names are official and appear on Chart 8550: Port Wells, Pigot Point, Pigot Bay, Point Decision and Point Cochrane. The following were supplied by the Chief of Party: Entry Cove, Slope Point, Strong Point, and Blackstone Point.

Shores:

The shores bordering these waters are steepto, with practically no outlying rocks, reefs nor islands.

The land rises directly from the water to an elevation of from two to three thousand feet.

These characteristics, together with its lack of any strong surface currents, due to its great depth and broad expanse, renders it an ideal channel for navigational purposes.

No drift ice has ever been seen by the TAKU's party in any of the waters covered by this sheet.

Sailing Directions:

Sailing Directions covering this Passage are embodied in my Season Report dated November 27th, 1914.

Respectfully submitted,

Gilbert T. Rude.

Assistant, C. & G. Survey,

Chief of Party.

Statistics for Hydrographic Sheet A

Steamer Taku

Date	Letter	Volume	No. Angles	No. Soundings	No. Miles	Vessel
June 23-1914	a	1	40	20	8.4	Taku
July 2-1914	b	1	88	44	15.1	Taku
July 8-1914	c	1	20	10	6.0	Taku
July 15-1914	d	1	142	71	21.4	Taku
July 16-1914	e	1	180	94	20.5	Taku
July 17-1914	f	1	114	134	18.2	Taku
July 18-1914	g	1	50	56	3.0	Taku
Aug. 4-1914	h	2	142	112	9.0	Taku
Aug. 5-1914	i	2	296	231	24.2	Taku
Aug. 6-1914	k	2	86	58	6.9	Taku
Aug. 6-1914	a	1	72	133	3.1	Whaleboat
			1230	963	135.8	

VEC
Jan.6,1915

HYDROGRAPHIC SHEET 3689.

Port Wells and Passage Canal, Prince William Sound, Alaska, by Assistant G. T. Rude in 1914.

TIDES.

	Passage Bay ft.
Mean lower low water, or plane of reference on staff	4.1
Lowest tide observed " "	1.2
Highest " " " "	18.6
Mean range of tide	9.6

Nov.,13,1915.

REPORT ON HYDROGRAPHIC SHEET 3689.

(Port Wells and entrance to Passage Canal, Prince William Sound, Alaska)

This sheet was protracted,plotted,and penciled curves drawn,by the field party. The protracting was verified by me by careful comparison with the boat sheet and by testing the plotting here and there of critical positions,and the plotting was verified from the sounding records. The boat sheet was of especial value in the verification: the obvious effort made to show the proper designation of positions,and continuity of sounding lines,is most commendable.

No errors were found in protracting. No errors of practical importance were discovered in plotting:among two or three less consequential changes position 13f4i(0.4 mi. N.E. of tri'n sta. Coch) was changed from 33 fms.to 53 fms All soundings were found plotted in quarter fathoms below 10: this is not according to the General Instructions,P.94,paragraph 337 and so the fractions below seven were changed to sixths,and those of nine omitted. A few soundings crowded by shoaler soundings were omitted in their favor. The closed 200 fm. curves at West end of werk were appreciably altered,as may be seen by traces of penciled ones.

Additional workhad been done in Entry Cove on a larger scale,as shown on sub-plan. This was plotted in Office. The following work which was already plotted on the main sheet,was re-plotted on the large scale sub-plan: 1e-5e, 1f-5f,49f-50f,1g-13g,41e-45e.

Soundings and curves inked by the undersigned.

Coline P. Eland.